2.2.5 $f(t) = 5\sin(2\pi \cdot \frac{3}{4} t)$, $g(t) = 5\cos(2\pi \cdot \frac{3}{4} t)$

$y = A\sin(Bt)$

$P = \frac{2\pi}{B}$, $f = \frac{1}{P}$, $f(t) = A\sin(\frac{2\pi n}{T} t)$, $g(t) = B\cos(\frac{2\pi n}{T} t)$

a.) A?

$f(t)$: $A = 5$
$g(t)$: $A = 5$

b.) P? $P = \frac{2\pi}{B}$

$f(t)$: $B = \frac{3\pi}{2}$ $P = \frac{2\pi}{\frac{3\pi}{2}} = 4/3$
$g(t)$: $B = \frac{3\pi}{2}$ $P = \frac{2\pi}{\frac{3\pi}{2}} = 4/3$

$f(t)$: $P = 4/3$
$g(t)$: $P = 4/3$

c.) f? $f = \frac{1}{P}$

$f(t)$: $P = 4/3$ $f = \frac{1}{4/3} = 3/4$
$g(t)$: $P = 4/3$ $f = \frac{1}{4/3} = 3/4$

$f(t)$: $f = 3/4$
$g(t)$: $f = 3/4$

d.) frequency index : 3 cycles from $[0, 4]$

$f = n/T$
$n = 3$
$T = 4$